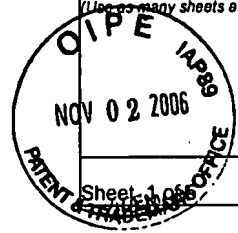


1 OF 5

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO
**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**
(Use as many sheets as necessary)



Complete if Known	
Application Number	10/814,113
Filing Date	March 30, 2004
First Named Inventor	Shao, Lei
Group Art Unit	2631
Examiner Name	Unknown
Attorney Docket No: 884.B52US1	

US PATENT DOCUMENTS

Examiner Initial *	USP Document Number	Publication Date	Name of Patentee or Applicant of cited Document	Filing Date If Appropriate
/KT/	US-2001/0033611A1	10/25/2001	Grimwood, M., et al.	03/01/2001
	US-2002//0173271A1	11/21/2002	Blair, J. L. et al.	03/21/2001
	US-2003/0043732A1	03/06/2003	Walton, J. R., et al.	06/26/2001
	US-2003/0083703A1	05/01/2003	Zhu, Q., et al.	10/25/2001
	US-2003/0161282A1	08/28/2003	Medvedev, I., et al.	02/26/2002
	US-2003/0204210A1	10/30/2003	Ousdigian, K. T., et al.	04/30/2002
	US-2003/0208241A1	11/06/2003	Bradley, K., et al.	05/02/2002
	US-2004/0258174A1	12/23/2004	Shao, L., et al.	02/26/2004
	US-2005/0031047A1	02/10/2005	Maltsev, A. A., et al.	12/16/2003
	US-2005/0058217A1	03/17/2005	Sandhu, S., et al.	06/28/2004
	US-2005/0128936A1	06/16/2005	Shao, L.	09/15/2004
	US-2005/0141412A1	06/30/2005	Sadri, A. A., et al.	12/29/2003
	US-2005/0152299A1	07/14/2005	Stephens, A. P.	03/23/2004
	US-2005/0152330A1	07/14/2005	Stephens, A. P., et al.	03/31/2004
	US-2005/0152357A1	07/14/2005	Stephens, A. P.	03/23/2004
	US-2005/0152465A1	07/14/2005	Maltsev, A. A., et al.	03/30/2004
	US-2005/0152466A1	07/14/2005	Maltsev, A. A., et al.	06/07/2004
	US-2005/0152473A1	07/14/2005	Maltsev, A. A., et al.	03/26/2004
	US-2005/0152484A1	07/14/2005	Sandhu, S., et al.	03/30/2004
	US-2005/0154957A1	07/14/2005	Jacobsen, E. A.	03/10/2004
	US-2005/0154958A1	07/14/2005	Xia, B., et al.	03/31/2004
	US-2005/0166131A1	07/28/2005	Xia, B., et al.	03/31/2004
	US-2005/0174927A1	08/11/2005	Stephens, A. P., et al.	12/20/2004
	US-5,311,456	05/10/1994	Chiang, L. C., et al.	05/28/1993
	US-5,960,351	09/28/1999	Przelomiec, T. A.	02/26/1997
/KT/	US-6,430,441	08/06/2002	Levine, P. A.	01/18/2000

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T ²
/KT/	EP-0939527A1	09/01/1999	Ralf, B., et al.	
	EP-1187506A1	03/13/2002	Kogiantis, A. G., et al.	
	EP-1240918A2	09/18/2002	Mouchawar, G. A., et al.	
	EP-1411647A2	04/21/2004	Liu, J.-T., et al.	
	EP-1533963A2	05/25/2005	Moorti, T., et al.	
	GB-2384651	07/30/2003	Matsuoka, H., et al.	
	WO-97/37441A1	10/09/1997	Dent, P. W.	
	WO-97/47147A1	12/11/1997	Zicker, R. G.	
	WO-01/59965A1	08/16/2001	Banerjee, S.	
/KT/	WO-01/95579A2	12/13/2001	Webster, M., et al.	

EXAMINER

/Khair Tran/

DATE CONSIDERED

06/06/2007

Substitute Disclosure Statement Form (PTO-1449)
* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

2 of 5

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Complete if Known	
	Application Number	10/814,113
	Filing Date	March 30, 2004
	First Named Inventor	Shao, Lei
	Group Art Unit	2631
	Examiner Name	Unknown
Sheet 2 of 5		Attorney Docket No: 884.B52US1

FOREIGN PATENT DOCUMENTS				
Examiner Initials*	Foreign Document No	Publication Date	Name of Patentee or Applicant of cited Document	T ²
/KT/	WO-03/001702A1	01/03/2003	Walton, J. R., et al.	
	WO-03/047198A2	06/05/2003	Kadous, T., et al.	
	WO-2004/047354A1	06/03/2004	Jorswieck, E., et al.	
	WO-2005/025471A1	03/24/2005	Purcell, R. W., et al.	
	WO-2005/029758A2	03/31/2005	Shao, L.	
	WO-2005/029759A2	03/31/2005	Sandhu, S., et al.	
	WO-2005/034435A2	04/14/2005	Maltsev, A. A., et al.	
	WO-2005/067171A1	07/21/2005	Sadri, A., et al.	
	WO-2005/069572A1	07/28/2005	Sandhu, S., et al.	
	WO-2005/069573A1	07/28/2005	Stephen, A. P.	
	WO-2005/069667A1	07/28/2005	Stephens, A. P.	
	WO-2005/071871A1	08/04/2005	Stephens, A. P., et al.	
	WO-2005/071910A1	08/04/2005	Maltsev, A. A., et al.	
	WO-2005/071912A1	08/04/2005	Maltsev, A. S., et al.	
	WO-2005/122515A1	12/22/2005	Sadri, A., et al.	

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
/KT/		"802.11g™ IEEE Local and Metropolitan Area Networks; Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) specifications; Amendment 4: Further Higher Data Rate extension in the 2.4 GHz Band", <u>IEEE Std. 802.11Gtm-2003</u> , The Institute of Electrical and Electronics Engineers, Inc. NY, (June 27, 2003), 78 pgs.		
		"International Search report for corresponding PCT Application No. PCT/US2004/029698", (Attorney Docket No. 884.B52WO1), (June 13, 2005), 7 pgs.		
		"Supplement to IEEE Standard for Information Technology- Telecommunications and Information Exchange Between Systems- Local and Metropolitan Area Networks - Specific Requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY)", <u>IEEE Std. 802.11a-1999</u> , IEEE Computer Society, New York, NY, (1999 (reaffirmed June 12, 2003)), 91 pgs.		
		"Supplement to IEEE Standard for IT-Telecomm. & Info. Exchange Between Systems - Local and Metropolitan Area Networks - specific requirements. Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specs: High-speed Physical Layer in 5GHz Band", <u>IEEE Std. 802.11a-1999</u> , (December 30, 1999), 90 pgs.		
/KT/		ABDUL AZIZ, M. K., et al., "Indoor Throughput and Range Improvements Using Standard Compliant AP Antenna Diversity in IEEE 802.11a and ETSI HIPERLAN/2", <u>VTC 2001 Fall. IEEE VTS 54th Vehicular Technology Conference</u> , 2001, Volume 4, (October 7-11, 2001), 2294-2298		

EXAMINER

/Khair Tran/

DATE CONSIDERED

06/06/2007

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/814,113
Filing Date	March 30, 2004
First Named Inventor	Shao, Lei
Group Art Unit	2631
Examiner Name	Unknown

Sheet 3 of 5

Attorney Docket No: 884.B52US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/KT/		BANGERTER, B., et al., "High-Throughput Wireless LAN Air Interface", <u>Intel Technology Journal</u> , 7(3), http://developer.intel.com/technology/itj/index.htm , (August 9, 2003), 47-57	
		BÖHNKE, R., et al., "Reduced Complexity MMSE Detection for BLAST Architectures", <u>GLOBECOM 2003 - IEEE Global Telecommunication Conference Proceedings</u> , 7 (7), (Dec. 1, 2003), 2258-2262	
		BÖLCSKEI, H., "Space-Frequency Coded MIMO-OFDM with variable Multiplexing-Diversity Tradeoff", <u>IEEE International Conference on Communications</u> , 4, (May 11, 2003), 2837-2841	
		CHOI, B., et al., "Optimum Mode-Switching-Assisted Constant-Power Single- and Multicarrier Adaptive Modulation", <u>IEEE Transactions on Vehicular Technology</u> , 52(3), (May, 2003), 536-560	
		CHUNG, C., et al., "Estimation of delay offset in multi-carrier differential phase modulation systems", <u>Communication Technology Proceedings of ICCT2003</u> , 2, (April 9, 2003), 1848-1851	
		CIOFFI, J. M., "Chapter 4 - Multi-Channel Modulation", <u>Lectures on Digital Communications, Stanford University</u> , Available from http://www.stanford.edu/class/ee379c/ , (2001), 278-314	
		DAMEN, M. O., et al., "On Maximum-Likelihood Detection and the Search for the Closest Lattice Point", <u>IEEE Transactions on Information Theory</u> , IEEE Inc. 49 (10), (October 1, 2003), 2389-2402	
		DAMMANN, A., et al., "Transmit/Receive - Antenna - Diversity Techniques For OFDM Systems", <u>European Transactions on Telecommunications</u> , 13 (5), Multi-Carrier Spread-Spectrum and Related Topics, (September, 2002), 531-538	
		FUJINO, Y., et al., "Transmitter With Antenna Array For MC-CDMA Forward Link", <u>IEEE Antennas and Propagation Society International Symposium</u> , (June, 22, 2003), 847-850	
		HIGUCHI, K., et al., "Adaptive Selection of Surviving Symbol Replica Candidates Based on Maximum Reliability in QRM-MLD for OFCDM MIMO Multiplexing", <u>Proceedings, IEEE Global Telecommunications Conference (GLOBECOM '04)</u> , (November 29, 2004), 2480-2486	
		HUTTER, A. A., et al., "Effects of Fading Correlation on Multiple Antenna Reception Mobile OFDM Systems", <u>IEEE Vehicular Technology Conference</u> , (Sep. 24, 2000), 2744-2749	
		LEKE, A., et al., "A maximum rate loading algorithm for discrete multitone modulation systems", <u>GLOBECOM '97, Global Telecommunications Conference</u> , 1997, Volume 3, (November 8, 1997), 1514-1518	
/KT/		MA, X., "Complex Field Coded MIMO Systems: Performance, Rate, and Trade-Offs", <u>Wireless Communications and Mobile Computing</u> , 2, (Oct, 2002), 693-717	

EXAMINER

/Khai Tran/

DATE CONSIDERED

06/06/2007

Substitute Disclosure Statement Form (PTO-1449)

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional) 2 Applicant is to place a check mark here if English language Translation is attached

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)	Complete if Known	
	Application Number	10/814,113
	Filing Date	March 30, 2004
	First Named Inventor	Shao, Lei
	Group Art Unit	2631
	Examiner Name	Unknown
Sheet 4 of 5		Attorney Docket No: 884.B52US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁴
/KT/		PAULRAJ, A., "Introduction to Space-Time Wireless Communications", <u>Introduction to Space-Time Wireless Communications</u> , Cambridge University Press, Cambridge, UK, (May 2003), 4 pgs.	
		RENDE, D., et al., "Bit Interleaved Space-frequency Coded Modulation for OFDM Systems", <u>IEEE International Conference on Communication, Vol.1 of 5, Wireless Information and Networking Group, (ICC 2003), (May 11,2003), 2827-2831</u>	
		SAMPATH, H., et al., "Linear Precoding and Decoding for Multiple Input Multiple Output(MIMO) Wireless Channels", Dissertation, Doctor Philosophy, Department of Electrical Engineering, Stanford University (April, 2001), 157 pgs.	
		SANDHU, S., et al., "Analog Combining of Multiple Receive Antennas With OFDM", <u>IEEE International Conference on Communications, (May 11, 2003), 3428-3432</u>	
		SEETHALER, D., et al., "Efficient Approximate-m1 Detection for MIMO Spatial Multiplexing Systems by Using a 1-D Nearest Neighbor Search", <u>Proceedings of the 3rd IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2003), (December 14, 2003),290-293</u>	
		SHAO, L., "High Rate Space Frequency Block Codes for Next Generation 802.11 WLANs", <u>IEEE International Conference on Communications, 5, (June 20, 2004), 2995-2999</u>	
		SIMOENS, S., et al., "Optimum Performance of Link adaptation in HIPERLAN/2 networks", <u>IEEE 53rd Vehicular Technology Conference, (VTC, 2001) Volume 2 of 4, (May 6-9, 2001), 1129-1133</u>	
		SLIMANE, B. S., "A Low Complexity Antenna Diversity Receiver For OFDM Based Systems", <u>IEEE International Conference on Communications, (June 6, 2001),1147-1151</u>	
		TIAN, Q., et al., "The Performance of Multi-Carrier CDMA with Base Station Antenna Arrays in Fading Channels", <u>Vehicular Technology Conference, (May. 15, 2000), 1498-1502</u>	
		WANG, Z., "Complex-Field Coding for OFDM Over Fading Wireless Channels", <u>IEEE Transactions on Information Theory, 49(2), (March, 2003), 707-720</u>	
		YIH, C. H., et al., "Adaptive Modulation, Power Allocation and Control for OFDM Wireless Networks", <u>IEEE 11th Annual Symposium on Personal, Indoor and Mobile Radio Communication, 2, (September 18, 2000), 809-813</u>	
		YUAN, H., et al., "An Adaptive Array Antenna with Path Selection of OFDM Signal", <u>European Personal Mobile Communications Conference,, (April 22, 2003),412-416</u>	
/KT/		YUE, J., et al., "Channel Estimation and Data Detection for MIMO-OFDM Systems", <u>Proceedings, IEEE Global Telecommunications Conference, (GLOBECOM '03), 7(7), (December 1, 2003), 581-585</u>	

EXAMINER

/Khai Tran/

DATE CONSIDERED

06/06/2007

5 of 5

Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>	Complete if Known	
	Application Number	10/814,113
	Filing Date	March 30, 2004
	First Named Inventor	Shao, Lei
	Group Art Unit	2631
	Examiner Name	Unknown
Sheet 5 of 5		Attorney Docket No: 884.B52US1

OTHER DOCUMENTS -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/KT/		ZHEN, L., et al., "A Modified Sub-Optimum Adaptive Bit and Power Allocation Algorithm in Wideband OFDM System", <u>Canadian Conference on Electrical and Computer Engineering, (CCECE 2003), Vol. 3 of 3, (May 4, 2003), 1589-1592</u>	

EXAMINER

/Khai Tran/

DATE CONSIDERED

06/06/2007